

Abstract

The present invention relates to a single step new catalytic process for the production of pyridine and picolines from a mixture of carbonyl compound and ammonia in the presence of zeolite catalyst with MFI topology containing Si and Zr and/or Sn as zeolite constituents in gas phase. The catalyst is preferably loaded with other metal ions such as lead, nickel, thallium or their mixture for increased yield. Present invention provides the novel use of above mentioned zeolite catalysts for the production of picolines for the first time, with improved yield of desired products picolines.